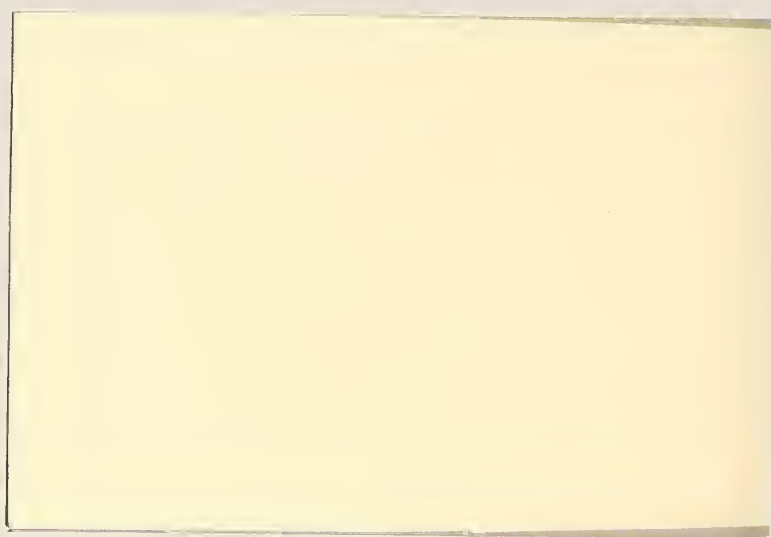


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CORPORATE LANDHOLDINGS:
AN INQUIRY INTO A DATA SOURCE

ESCS Staff Report NRED 80-5

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ABSTRACT

Data on landownership in general and corporate landownership in particular are meager. This study examines Security and Exchange Commission reporting requirements for publicly traded corporations, aggregates the available data, assesses the data source, and suggests means to improve the data. Landholdings of 568 firms, each reporting holdings of 500 or more acres, total 57.8 million acres of owned land, 80.9 million acres of leaseholds, and an undisclosed interest in 163.0 million acres in the United States. Most owned land is used for timber production.

Helpful amendments to reporting requirements from a research perspective are the reporting of an inventory of acres owned and controlled, by State and use category.

Key words: Landownership; corporate landownership; data sources.

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CONTENTS

Summary 1
Introduction. 2
Information Role of the Securities and Exchange Commission. 3
Presentation of Data. 6
Assessment of the Data Source 18
Appendix - Firms Included in the Study. A-1

SUMMARY

Data on corporate landownership are meager. The Securities and Exchange Commission (SEC) is the source of most corporate financial information at the Federal level. This study examines SEC reporting requirements on the landholdings of large, publicly traded corporations, aggregates the available data, assesses the data source and suggests improvements.

In 1976, landholdings of the 568 large, publicly held corporations in the study, each of which reported landholdings of 500 acres or more, total 57.8 million acres of owned land, leasehold interest of 80.9 million acres, and an undisclosed interest in 163.0 million acres in the U.S. Most land held in fee by these firms is used for timber production. Agricultural use is a distant second. Petroleum production is the predominant use on land held with a less than fee interest, both within and outside the United States. Eight firms are identified as being foreign controlled.

Amendments to existing SEC reporting requirements could improve disclosure of data on resource ownership by large, publicly held corporations. Particularly helpful to researchers would be the reporting of an inventory expressed in acres of land owned and controlled by large corporations, by State and by use category, at uniform points in time. These changes can help supply the facts needed to answer questions about resource ownership in America.

INTRODUCTION

Ownership and control of the land resources of this country have been issues of concern since the earliest settlements. In this century, particularly in the 1930's and in the 1970's, corporate farmland ownership has been the object of attention and concern.^{1/} More recently, investments of foreign corporations, including real estate, are being examined for possible impacts on the U.S. economy.^{2/} Despite this continuing interest, data about landownership in general and corporate landownership in particular have been poor.^{3/}

This paper examines existing sources of corporate landownership data. The focus is on the Securities and Exchange Commission (SEC), a relatively unused source, with the following objectives:

- 1) Describe the financial report gathering system of the Securities and Exchange Commission and its use by commercial financial reporting firms;
- 2) Present summary data on land holdings of 568 large, publicly-held corporations compiled from SEC based reports;
- 3) Provide suggestions on how current SEC procedures can be modified to meet broader financial disclosure and information purposes.

^{1/}Morrison, Fred L., and Kenneth R. Krause, State and Federal Legal Regulation of Alien and Corporate Land Ownership and Farm Operation, AER No. 284, U.S. Dept. of Agr., ERS, Washington, D.C., Dec. 1975, Appendix D. Also see "Corporate Invasion in Land Ownership," a working paper for the Third National Conference on Rural America, published by Rural America, Washington, D.C., Dec. 1977, and the Food and Agriculture Act of 1977, P.L. 95-113, Title 1, Sec. 102.

^{2/}Studies and data collection have been mandated under P.L. 93-479, The Foreign Investment Study Act of 1974; P.L. 94-472, The International Investment Survey Act of 1976; and P.L. 95-460, The Agricultural Foreign Investment Disclosure Act of 1978.

^{3/}The Economics, Statistics, and Cooperatives Service, USDA, has recently completed a national landownership survey which helps remedy the dearth of ownership data.

The Bureau of the Census and the U.S. Forest Service supply most of the available data on privately owned rural land. These sources have numerous limitations. The Census of Agriculture contains only limited information on landownership and covers only land in operating farm units. It is directed to farm operators, not farmland owners. The Forest Service surveys collect very limited ownership data. Acreage owned by general ownership categories is estimated but the number of private forest landowners is not known.

Faced with these limitations from existing sources of ownership data, researchers in ESCS have for several years augmented Census of Agriculture and Forest Service data on corporate (especially agribusiness) landownership and investment with data from secondary sources. Economic intelligence on the status and trends of corporate activity in agricultural and natural resources sectors of the U.S. economy have been gleaned from financial newspapers, trade magazines, business directories, corporate annual reports and prospectuses. In addition, reports filed with the Securities and Exchange Commission have been examined for data on land holdings of large, publicly traded corporations. The SEC reports are the source of most corporate financial information at the Federal level.

This paper reports an effort to systematize landholding data from a particular subset of corporations regulated by the SEC. It seeks to more fully utilize an existing, public data source. It complements other current data-base building efforts such as the Resource Economic Survey in ESCS and improved data on non-operator landlords in the Census of Agriculture.

Information Role of the Securities and Exchange Commission

The SEC derives its authority for requiring financial disclosure reports through the various federal securities laws, primarily the Securities Exchange

Act of 1934 ("1934 Act"). The purpose of these financial disclosure laws as later interpreted by the courts is "to substitute [the] philosophy of full disclosure for [the] philosophy of caveat emptor, and thus to achieve a high standard of business ethics in [the] securities industry."^{4/} Firms engaged in interstate commerce who have both five hundred or more holders of record of the same class of equity securities and total assets exceeding one million dollars at the end of a fiscal year are required to file periodic reports with the SEC.^{5/} The requirement to file such reports terminates when the number of holders of record falls below 300 persons.

The annual reports required under the 1934 Act generally are filed under Form 10-K. Part I of Form 10-K requires 12 items of information from each registrant, including information on properties. Registrants must state briefly the location and general character of the principal plants, mines and other materially important physical properties of the registrant and its subsidiaries.^{6/} Most firms report data on landholdings in the discussion of properties, although some firms may report data on landholdings as part of the general description of the business. Approximately 12,000 firms file 10-K reports each year.

The SEC organizes these reports on a firm by firm basis. This system provides adequate access to firm records for the SEC to carry out their responsibilities.

^{4/}SEC v. Capital Gains Research Bureau, Inc., (1963) 375 U.S. 180, 11 L. Ed. 2d 237, 84 S. c+275.

^{5/}Securities Exchange Act of 1934, Section 12(g). Also see Section 15(d) of the 1934 Act regarding the necessity for an issuer of securities which has filed a registration statement for the sale of securities under the Securities Act of 1933 to file periodic reports under the 1934 Act for at least one year and for every year thereafter in which it has at least 300 holders of record of a class of equity security.

^{6/}SEC, Release Number 34-15068 (August 16, 1978) includes a copy of Form 10-K and instructions for its completion.

However, no aggregation of data on property holdings is attempted and multiple uses of data have, from SEC's perspective, low priority. These reports are utilized by business directories such as Moody's Industrial Manual and Standard and Poor's Standard Corporation Records. Moody's and Standard and Poor's organize, summarize, and evaluate the SEC reports and distribute this information to their subscribers.

While the source of data for this study is the SEC reports (via Moody's and Standard and Poor's) the list frame is not the 12,000 firms which file SEC reports. The list frame is the approximate 5,500 firms which are traded on the New York Stock Exchange (NYSE), the American Stock Exchange (AMEX), regional exchanges, and approximately 2,100 firms which are traded over the counter (OTC). The OTC selections are consistent with the OTC listing in Standard Corporation Records. The criteria for inclusion of corporations traded OTC are the corporations assets, revenues, activity of the stock, value of the stock, and number of shareholders.

All entries in the Industrial Manual and Standard Corporation Record were examined since these same firms comprise the list frame for the study. Data on the firm's principle business, location, landholdings, and land use were recorded if the firm revealed control by ownership or lease of at least 500 acres of land. Therefore, a firm included in this report is one which is publicly traded and holds 500 or more acres, an amount judged to be a non-trivial landholding.^{7/} These criteria were met by 568 firms.

The 568 corporations in this study are not a listing of all landholding corporations or a sample of large corporations. They are not a listing of

^{7/} Of the approximate 5,500 firms in the list frame, less than one percent stated they controlled no land, eight percent revealed control of between one and 499 acres, and over 10 percent of the firms controlled in excess of 500 acres. About four percent revealed no data on holdings while about 77 percent implied control of some land (mainly by listing locations) without specifying the quantity.

corporations with the largest landholdings since some corporations with large landholdings may not be publicly held. Similarly, some very large landholders are not corporations. These data come from a complete enumeration of a significant, specifically defined set. It is not a basis for estimating either the number of corporations owning land or their holdings. However, these data do provide information on a class of owners not available elsewhere. The usefulness of the data depends largely on the needs of the user and on the integration of this data set into larger information systems.

Presentation of the Data

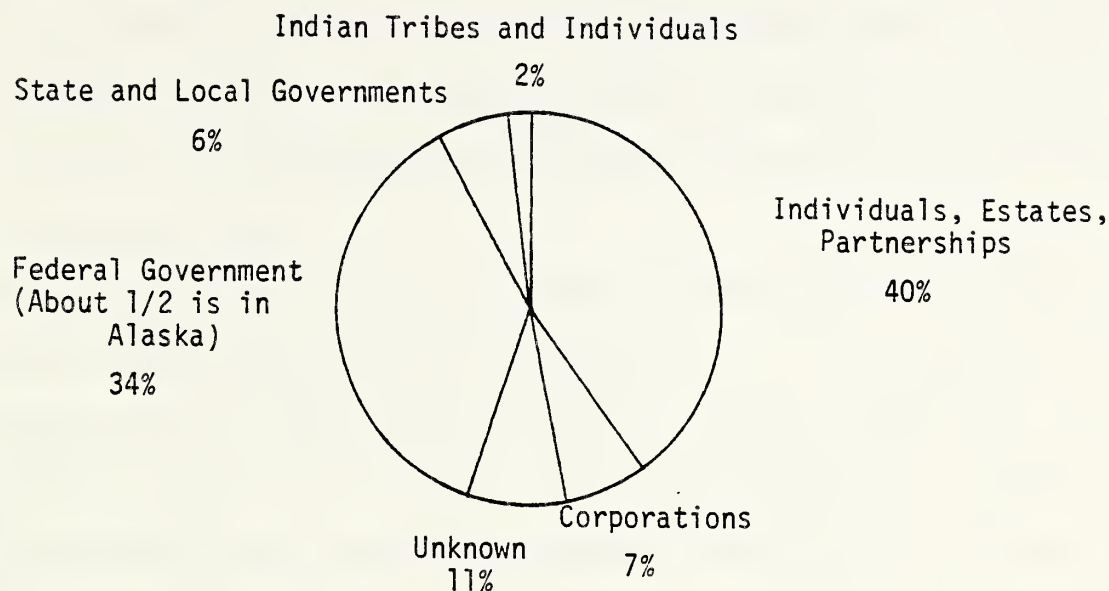
There are 2,264 million acres in the U.S. An estimated 948 million acres are owned by the Federal, State, and local governments or Indian tribes.^{8/} The remaining 1,316 million acres are in private ownership and represent almost 60 percent of the total. Privately owned land may be held by a variety of owners; by individuals, partnerships, trusts, estates, corporations, and so on. Individuals, estates, and partnerships own at least 913 million acres, corporations own at least 150 million acres, and the ownership of the remaining 253 million acres is not known (figure 1).^{9/}

An additional consideration in the discussion of landownership is the complexity of ownership and control of property. Firms may hold fee simple rights

^{8/}Frey, H. Thomas, Major Uses of Land in the United States: 1974, Agriculture Economics Report 440, ESCS, U.S. Dept. of Agr., Washington, D.C., Nov. 1979.

^{9/}These estimates are derived from selected Census of Agriculture, Forest Statistics, and housing data. Preliminary results from the Resource Economic Survey indicate all corporations own about 209 million acres. Sole proprietors, husband-wife, and family partnerships own about 80 percent of privately owned land. Nonfamily partnerships, estates, etc. own over 6 percent of privately owned land.

Figure 1. Landownership in the United States



Total area 2,264 million acres

in property or something less than fee. The rights may have a time dimension. They may be for the subsurface, surface, suprasurface or some combination. The rights may be for many acres or for part of an acre. It is often difficult to ascertain where effective control of land and its embodied resources lie due to fractionalization of interests. New property objects (development right), relationships (scenic easement), and persons (real estate investment trust), are developing continuously.^{10/} This fractionalization complicates the ownership and control mosaic of natural resources.

^{10/}Wunderlich, Gene, "A Concept of Property" in Agr. Econ. Res., Vol. 21, No. 1, Jan. 1969, p. 2.

This study does not attempt to determine control of the firm that controls the land. A minority of stockholders may control management. Nominal owners may be named in place of beneficial owners. Foreign parent, affiliate, and subsidiary relationships of these firms were noted where possible in the data collection phase. However, those categories may not accurately reflect the range of control one firm exercises over another or additional controls exercised through the market place.

Corporations in the study were assigned a Standard Industrial Classification code number (SIC) according to their major enterprise. SIC classes are a convenient, recognized method of grouping firms with similar lines of business.^{11/} Land tenures^{12/} were categorized as owned, leased, or land held in an unspecified manner by the firms. Many firms reported holding land under more than one tenure, hence the total number of firms in each control category may be less than the sum of the number of firms across tenure categories. Data are current to 1976.

The 568 corporations in this study own about 57.8 million acres, lease about 80.9 million acres, and have an unspecified tenure with respect to 163 million acres (Table 1). In total, these firms own or have access to about 301.7 million acres in the U.S. Table 2 illustrates the use of land by tenure classification.

Sometimes, as in the case of timber companies, ownership implies use or vice versa. Much of the timberland owned by these corporations is held by firms engaged in lumber and wood products or paper and allied products manufacturing. Thirty-four firms with those enterprises own about 31.2 million acres of timberland, part of the 38.8 million acres of timberland owned by all manufacturing

^{11/} Many firms have widely divergent enterprises. Those firms were assigned a class based on the enterprise which contributed most to firm output.

^{12/} Tenure refers to the relationship between the right-holder and the land.

Table 1. Selected Corporations and Their U.S. Landholdings by Interest Held, 1976

Major industrial grouping by SIC class	Own		Lease		Unspecified 1/		Total	
	Firms	Thousand Acres	Firms	Thousand Acres	Firms	Thousand Acres	Firms	Thousand Acres
Agriculture, Forestry, Fishing	14	700	7	1,322	1	60	15	2,082
Mining	40	2,370	68	41,108	76	57,305	144	100,783
Construction	10	45	1	3			11	48
Manufacturing	139	41,778	45	15,618	41	34,884	186	92,279
Transportation, Utilities, etc. ...	19	2,930	14	10,708	17	11,024	43	24,663
Wholesale and Retail Trade	6	195	2	4	2	5,465	8	5,664
Finance, Insurance, and Real Estate	77	8,366	20	8,743	17	52,448	93	69,556
Services	12	750	1	7	2	769	15	1,527
Unassigned SIC	28	647	21	3,419	15	1,080	53	5,147
Total	345	57,782	179	80,932	171	163,036	568	301,749

1/ Undetermined tenure relationship

2/ Totals may not add due to multiple tenures by some firms

3/ Totals may not add due to rounding

Table 2. Land Use by Tenure Class for Selected Corporations, 1976

Land Use	Own		Lease		Unspecified		Total ^{1/}	
	Firms ^{2/}	Thousand Acres	Firms	Thousand Acres	Firms	Thousand Acres	Firms ^{3/}	Thousand Acres
Agriculture	80	5,722	27	1,645	5	1,368	86	8,736
Development	122	3,503	2	1	1	26	124	3,530
Energy Resources:								
Coal	14	1,359	15	580	11	1,255	35	3,194
Petroleum	2	646	73	33,744	81	100,066	149	134,456
Petroleum in North America ^{4/}			11	18,705			11	18,705
Combination of Energy Resources ^{5/} ..	5	115	8	11,871	13	18,143	24	30,128
Gravel	11	64	3	6			12	70
Minerals	32	953	11	6,722	31	9,700	63	17,375
Recreation	13	72	3	1			13	74
Timber	58	42,285	13	6,064	21	27,679	71	76,028
Multiple Use	7	1,334	4	1,543	2	4,088	13	6,965
Other and Unknown Uses	45	1,728	9	50	6	711	58	2,489
Total	389	57,782	179	80,932	171	163,036	659	301,749

^{1/} Totals may not add due to rounding.^{2/} More than one use can be reported by each firm for land owned^{3/} Totals may not add due to multiple tenures by some firms.^{4/} Some firms with petroleum lease holds in both the U.S. and Canada gave total acreage controlled by the firm and didn't enumerate acreage in each country, hence a special category.^{5/} Combinations of energy resources is a category describing uses of land devoted to the recovery of multiple sources of energy, e.g., oil, coal, uranium, solar, geothermal, or wind power from the same tract.

firms (Table 3). The largest agricultural holdings were owned by firms classified in two SIC subgroups, "real estate firms," and "holding and other investment offices," both in the finance, insurance, and real estate group. Eleven such firms own 3.5 million acres of agricultural land. Six of these same firms own a considerable portion of the land held for development. This suggests that agricultural land held by these firms is in transition, ripening for development.

There is a good deal of concentration of land owned by the firms in this study.^{13/} The 7.9 percent of the firms owning 500,000 acres or more own 73.6 percent of the land (Table 4). Alternately stated, 27 firms own 42.6 million acres. The prevalent use of the very largest holdings of owned land is for timber production. Most owners of the largest tracts are paper or wood manufacturers. Other owners of large tracts are primarily holding or real estate companies or railroads. Smaller sized holdings are characterized by more intensive uses (development, mining, recreation) which implies much greater values per acre than the largest tracts.

Table 4. Size distribution of land owned by selected firms, 1976

Size of holding (owned acres)	Percent of firms	Percent of land
500 to 9,999	49.4	1.0
10,000 to 24,999	12.4	1.1
25,000 to 49,999	8.7	1.7
50,000 to 99,999	7.2	3.0
100,000 to 499,999	14.4	19.6
500,000 to 999,999	3.5	14.8
1,000,000 to 4,999,999	3.8	36.7
5,000,000 or more	.6	22.1
Total	100.0	100.0

^{13/} The Gini ratio is .92.

Table 3. Use of Land by Industrial Classification of Owner, 1976

Major industrial grouping by SIC class	Land Use													
	Agriculture	Development	Energy Resources					Gravel	Minerals	Recreation	Timber	Multiple use	Other & Unknown	Total
			Coal	Petroleum	Combination of energy resources									
Agriculture, Forestry, Fishing	651,900	41,600							1,700				4,600	699,800
Mining	283,300	177,100	231,600	594,200	33,700	20,000		113,100		651,400	165,600		99,600	2,369,600
Construction		43,700							1,000					44,700
Manufacturing	714,600	547,700	131,000	51,500	81,000	38,400		798,600	9,800	38,817,900	275,900		311,400	41,777,800
Transportation, Utilities	109,500	62,800	254,400						5,500	1,500,000	889,500		108,700	2,930,400
Wholesale and Retail Trade	131,000	38,500								25,800				195,300
Finance, Insurance, & Real Estate	3,511,600	2,429,100	738,300			5,500		33,600	6,800	1,134,000	2,800		504,600	8,366,300
Services	89,700	16,400							18,100				626,300	750,500
Unassigned	230,900	146,300	3,800					7,500	29,300	156,100			73,300	647,200
Total	5,722,500	3,503,200	1,359,100	645,700	114,700	63,900		952,800	72,200	42,285,200	1,333,800		1,728,500	57,781,600
Number of firms	80	122	14	2	5	11		32	13	58	7		45	345

Most leased land is held by petroleum firms presumably for exploration or production of oil (Table 5). Many of the firms in this study engaged in petroleum exploration listed off shore leaseholds, especially in the Gulf of Mexico.^{14/} It is probable that much of the land leased by firms in this study is owned by the public, especially land used for timber, mineral, and certain energy resources.^{15/} Determination of the owner of leased land is not possible from the data used in this study.

Many firms listed landholdings but failed to explain the tenure relationship thus the necessity for an unspecified tenure category. Of the 163 million acres controlled by 171 firms which didn't specify the nature of their tenure, over 100 million acres were used for petroleum production and exploration (Table 6). Another 18 million acres was held by companies with energy resource development objectives. From the nature of these uses, it is reasonable to speculate that most of the land is controlled by lease.

Some firms reported their holdings in units other than acres, e.g., dollars or tons of reserves. Firms in this study reported 1,366 million dollars of real estate holdings in addition to the acreages they held.^{16/} Manufacturing concerns listed real estate valued at 984 million dollars, some of it probably structures

^{14/} As of December 21, 1975, 8,822,000 acres of the outer continental shelf (OCS) was leased for oil and gas exploration. "Public Land Statistics, 1976." Interior staff indicates that about 10,000,000 acres of OCS was leased effective 12/31/78. Also see "Petroleum and Sulfur on the U.S. Continental Shelf." U.S. Dept. of Interior, Wash. D.C., 1969, Table 1. Coastal States have jurisdiction over 30.7 million acres and the Federal government has jurisdiction over 515.4 million acres of continental seabeds adjacent to the U.S. up to the 200 meter depth.

^{15/} Public Land Statistics lists permits, leases, licenses, etc. for these and other uses on public land.

^{16/} It is not known whether these are acquisition or current value figures.

Table 5. Use of Land by Industrial Classification of Leasee, 1976

[illegible]

1/ Supra, footnote 4, table 2.

Table 6. Use of Land Held in an Unspecified Manner by Industrial Classification of Landholder, 1976

Major industrial grouping by SIC class	Land Use									
	Agriculture	Development	Energy Resources:			Minerals	Timber	Multiple use	Other & Unknown	Total
			Coal	Petroleum	Combination of energy resources					
Agriculture, Forestry, Fishing				60,000						60,000
Mining	4,100		832,100	45,964,900	10,157,400	346,800				57,305,300
Construction										
Manufacturing	21,000		17,700	8,270,400	5,958,200	493,100	20,042,600		81,000	34,884,000
Transportation, Utilities, etc.			67,600	8,594,000	2,027,000		330,600		5,300	11,024,500
Wholesale and Retail Trade.						4,400	5,461,000			5,465,400
Finance, Insurance and Real Estate	1,330,000	25,800	338,000	36,341,200		7,923,100	1,844,500	4,087,900	557,100	52,447,600
Services				4,200		764,900				769,100
Unassigned	13,400			831,700		167,600			67,400	1,080,100
Total	1,368,500	25,800	1,255,400	100,066,400	18,142,600	9,699,900	27,678,700	4,087,900	710,800	163,036,000
Number of firms	5	1	11	81	13	31	21	2	6	171

and improvements. Service firms reported inventories of 159 million dollars and mining firms held 125 million dollars of real estate. Construction firms controlled 66 million dollars of real estate. About 32 million dollars of real estate was reported by firms in transportation, finance, real estate, and insurance firms. Twenty-eight firms listed real estate in dollar terms and six firms listed tonnage reserves.

Twenty-two of the corporations in this study owned land outside the U.S. One-half were manufacturing firms who owned 2.4 million acres, which was about four-fifths of the reported ownership (3.1 million acres). Timber was the largest use of land owned by these selected firms outside the U.S., accounting for 1.9 million acres. Agricultural use was second, with almost 700,000 acres. Some of these firms are foreign firms which invest in the U.S. so the land owned may in fact be in their home country.

In contrast to ownership, many more firms control much more land outside the U.S. by leases, royalties, concessions, cutting rights, and other methods. One hundred seventeen firms report control of 1,675 million acres (Table 7). Resource extraction is an evident use of much of the land held outside the U.S.

The holdings were located all over the world, but were especially common in the southern hemisphere. Many tracts used for petroleum exploration were located on the outer continental shelf. As with domestic holdings in a less than fee manner, it is difficult to determine how much control is exercised over the asset by the firm and how much control is retained by the owner in the host country.

Eight of the 568 firms are identified as being foreign controlled. The foreign firms are included in the study because they entered U.S. securities markets and are required to make the same disclosures and reports domestically controlled firms do. Four of those firms were primarily engaged in petroleum extraction, two had unspecified

Table 7. Use of Land by Industrial Classification of the Lessee for Land Held Outside the U.S., 1976

Major industrial grouping by SIC class	Land Use											
	Agriculture :	Development :	Energy Resources :			Minerals :	Timber :	Multiple Use :	Other & Unknown :	Total :		
			Coal :	Petroleum :	Combina- tion of :							
Agriculture, Forestry, Fishing.....											39,000	39,000
Mining	1,001,000	1,137,600		582,296,300		261,900		344,326,100		3,477,600		932,500,500
Construction												
Manufacturing	113,500		144,000	103,946,000		2,746,500	59,778,000	17,503,900	346,319,900			530,551,800
Transportation, Utilities, etc.....				5,529,600	1,898,000							7,427,600
Wholesale and Retail Trade												
Finance, Insurance, and Real Estate	701,400			37,617,000				48,712,500	96,800,000			183,830,900
Services				265,600								265,600
Unassigned				11,789,400			113,000	8,937,900				20,840,300
Total	1,815,900	1,137,600	144,000	741,443,900	1,898,000	3,008,400	59,891,000	419,480,400	446,636,500			1,675,455,700
Number of firms.....	7	1	1	64	1	8	14	14	7			117

business activities, one was in manufacturing, and one was engaged in real estate development. They held land interests in over twenty-five states. These firms operate predominately in the states of Colorado, Louisiana, Montana, Oklahoma, Pennsylvania, and Texas.

Limited information is available from SEC reports regarding the state or regional location of corporate controlled land. Inferences on location can be made considering corporate activity and reported land use, but acreage data by state are not available. More firms in this study reported owning or holding land in California and Texas than any of the other states. Florida is third in total corporate activity. Colorado, Louisiana, Wyoming, New Mexico, Oklahoma, Arizona, and Utah complete the top ten states in terms of number of firms owning or holding land within their boundaries. It appears that petroleum related uses predominate in Texas and Louisiana. Development activity was prevalent in the sunbelt states, particularly Florida and California. Agricultural use is prominent in California, Texas, and Florida.

Assessment of the Data Source

The Securities and Exchange Commission form 10-K is the basic source document for this study. While fulfilling SEC needs, the 10-K presents several problems for researchers in natural resource economics. One problem discussed earlier is the relationship of these data to other sets of ownership data. Other problems concern the 10-K as an information system and aggregation of the data.

Only one copy of the 10-K form is in the company file at the SEC headquarters in Washington, D.C. Individuals desiring data must copy it from the originals, pay SEC to copy the originals on paper, or purchase microfiche copies from a private contractor. Assembling data from the form is costly.

No aggregation is attempted by the SEC. Information is not presented consistently because firms may respond to the 10-K requirements within broad guidelines. It is a highly descriptive report. Item 3 of 10-K, concerning property, lends itself to more standardization. Standardization is apparent in the financial disclosure sections where accepted accounting procedures are followed. Even with uniformity, the data may only be useful for inventory purposes, which is a positive step, but lack the information needed to explain why changes are occurring.

There are other aggregation problems. The reports are required by SEC following the close of each firm's fiscal year which fall throughout the calendar year. Since land purchases and sales occur continuously, a simple summation of data in the property section may not accurately reflect the land owned by all firms filing 10-K's on a given date. It is also difficult to determine all relations with other companies with respect to land, e.g., parents and affiliates.

Varying units of measure cause aggregation problems. Dollars, acres, wells, and reserves stated in tons, yards, barrels, or board feet make comparisons difficult or impossible. In many cases, a firm will not report specific holdings but will state that adequate or sufficient property is owned or controlled by the firm to carry on anticipated business and the property is being properly maintained and utilized. A final aggregation problem is that data may be ambiguous. Many firms have several lines of business and classification under a single SIC code may be misleading. Tenure and land use are also difficult to classify from an open-ended style of report such as the 10-K.

Precedent exists to amend SEC forms which further "substitute the philosophy of full disclosure for . . . caveat emptor."^{17/} One example germane to the

^{17/} SEC v. Capital Gains Research Bureau, Inc., (1963) 375 U.S. 180, 11 L.Ed. 2d 237, 84 S. c+275.

property holdings of a firm is the recent requirement for more uniform disclosure of oil and gas reserves by firms claiming substantial reserves as assets.^{18/} While in many cases there is a private interest in secrecy by the firm, there is also a "public" interest in disclosure. National policy makers recognize the conflict between the two positions. Modifications to existing data sources, such as SEC reports, may ease respondent burden within the spirit of disclosure.^{19/} Such data sources will undoubtedly become more important in the future in analyzing consequences of alternative economic policies.

Specific suggestions to make the SEC 10-K data more useful to researchers are:

1. Report holdings in acres. Economic value may dictate disclosure of holdings in other units, but acres should always be reported by state.
2. Revise the open-ended format, especially in the property section, by developing and defining tenure and use categories.
3. Include location, size, use, and value of land as well as ownership.
4. Require disclosure of an inventory of landholdings as of a specific date (e.g., Jan. 1). In general, construct a classification system which requires uniform disclosure of data.
5. Modernize the information handling and retrieval system. The descriptive parts may have to remain the same but much of the data could be organized so that computerization is facilitated.
6. Encourage SEC to expand from the view of an intensive case study to include the possibility of aggregation for industry or sector wide studies.

The 10-K is a useful source of information. SEC reports were not designed for aggregative statistics but much could be done within existing SEC authorities to provide needed data on corporate land holding.

^{18/} SEC, Securities Exchange Act of 1934, Release No. 12435.

^{19/} The purpose of the Federal Reports Act (44 U.S.C. 3501-3512) is to allow necessary information to be obtained by the Federal Government with minimum burden on the public.

Policies regarding disclosure and reporting of corporate held assets are being examined.^{20/} Public attention has recently been focusing on the domestic economic impacts of foreign investment in the U.S. and in the operations of transnational firms. Resource ownership is one of the many issues. Adjustments can be made in existing SEC reports to correct many data deficiencies at low cost.

^{20/} Report of the Advisory Committee on Corporate Disclosure to the Securities and Exchange Commission. Prepared for the House Committee on Interstate and Foreign Commerce. U.S. Government Printing Office, Washington, D.C., 1977.

APPENDIX

Firms Included in the Study*

Abbey Glen Property Corp.	American Electric Power Co.
Aberdeen Petroleum Corp.	American Foods, Inc.
Acquitaine Pennsylvania, Inc.	American Garden Products, Inc.
Adobe Oil and Gas Corp.	American Kitchen Foods
Aerodex, Inc.	American Land Equity, Inc.
A.J. Industries, Inc.	American Maize Products Co.
Alabama By-Products Corp.	American Petrofina, Inc.
Alco Standard Corp.	American Standard, Inc.
Alexander and Baldwin, Inc.	Amfac, Inc.
Alico, Inc.	Amrep Corp.
All-American Realty Co., Inc.	Anaconda Co.
All-State Properties, Inc.	Anderson Clayton and Co.
Allegheny Beverage Corp.	Anheuser-Busch, Inc.
Allied Chemical Corp.	Apache Corp.
Almaden Vineyards, Inc.	Arapaho Petroleum, Inc.
Alton Box Board Co.	Arcata National Corp.
Aluminum Company of America	Argus Resources
Amarex, Inc.	Arizona-Colorado Land and Cattle Co.
Amax	Arkansas Louisiana Gas Co.
Amcord, Inc.	Armco Steel Corp.
Amcourt Systems, Inc.	Arundel Corp.
Amerada Hess Corp.	Arvida Corp.
American Aggregates Corp.	Asarco, Inc.
American Agronomics Corp.	Ashland Oil, Inc.
American Broadcasting Company, Inc.	Atchison, Topeka and Santa Fe Railway Co.
American Can Co.	Atlantic Oil Corp.
American Continental Homes, Inc.	Atlantic Richfield
American Cyanamid	Atlas Corp.

*List subject to change due to merger, acquisition, liquidation of holdings, name changes, etc.

Audiscan, Inc.	Callahan Mining Corp.
Avco Corp.	Callon Petroleum Co.
Aztec Oil and Gas Co.	Calspan Corp.
Bangor Punta Corp.	Calumet Industries, Inc.
Basic, Inc.	Cameron Iron Works, Inc.
Bates Manufacturing Co., Inc.	Campanelli Industries, Inc.
Beard Oil Co.	Carbon Industries
Beaver Creek Industries	Cascade Natural Gas Corp.
Bekland Resources Corp.	Castle and Cooke, Inc.
Belco Petroleum Corp.	Cavanagh Communities Corp.
Bendix Corp.	Central Illinois Public Service Co.
Bengal Oil and Gas Corp.	Central Indiana Gas Co., Inc.
Benham-Blair and Affiliates, Inc.	Centrex Corp.
Bliss and Laughlin Industries, Inc.	Cenvill Communities, Inc.
Blue Ridge Real Estate Co.	Cerro Corp.
Boeing Co.	Champion International Corp.
Bohemia, Inc.	Chaparral Resources, Inc.
Bomaine Corp.	Charnita, Inc.
Boise Cascade Corp.	Charter Co.
Brewer and Co., Ltd.	Chesapeake Corp. of Virginia
Brown Co.	The Chesapeake and Ohio Railway Co.
Buck Hill Falls Co.	Chessie Systems
Budget Industries, Inc.	Chicago Milwaukee Corp.
Burlington Northern, Inc.	Chieftan Development Co., Ltd.
R.L. Burns Corp.	Cities Service Co.
Burton-Hawks, Inc.	Citizens Finance Corp.
Buttes Gas and Oil Co.	City Investing Co.
C & K Petroleum, Inc.	Cleveland-Cliffs Iron Co.
Cabot Corp.	Clinton Oil Co.
Caesar's World, Inc.	Coco-Cola Bottling Co. of N.Y., Inc.
Calderone-Curran Ranches, Inc.	The Coca-Cola Co.
California-Pacific Utilities Co.	Colonial Royalties Co.

Columbia Gas System, Inc.
Columbus and Southern Ohio Electric Co.
Comprehensive Communities Corp.
Conrock Co.
Consolidated Natural Gas Co.
Consolidated Oil and Gas, Inc.
Consolidated Paper, Inc.
Consolidated Silver Corp.
Consol-Tomoka Land Co.
Consumers Power Co.
Context Industries, Inc.
Continental Can Co.
Continental Oil Co.
Copper Range Co.
Coquina Oil Corp.
Coronado Oil and Minerals Co.
Cotton Petroleum Corp.
Cousins Properties
Crane Co.
Creole Petroleum Corp.
Cresson Consolidated, Inc.
Crestmont Oil and Gas Co.
Crown Central Petroleum
Crown Zellerbach Corp.
Crystal Oil Co..
Damson Oil Corp.
Dart Industries
Theo H. Davies and Co., Ltd.
DeKalb AgResearch, Inc.
Del Monte Corp.
Del Monte Properties Co.
Delhi International Oil Corp.
Deltona Corp.

Denver Union Corp.
Di Giorgio Corp.
Diamond International Crop.
Diamond Shamrock Corp.
Diamondhead Corp.
Dillingham Corp.
Dorchester Gas Corp.
Dowdle Oil Corp.
Duke Power Co.
Eastern Gas and Fuel Associates
Echo Oil Corp.
Elcor Chemical Corp.
Elk Horn Coal Corp.
El Paso Co.
Energy Minerals Corp.
Esmark, Inc.
Ethyl Corp.
Evans and Mitchell Industries, Inc.
Exchange Oil and Gas Corp.
Fairfield Communities Land Co.
Falcon Seaboard, Inc.
Federal Paper Board Co., Inc.
Federal Resources Corp.
Felmont Oil Corp.
Fibreboard Corp.
First Mississippi Corp.
First Realty Investment Corp.
Flavorland Industries, Inc.
Florida Gas Co.
Florida Mining and Materials Corp.
Flying Diamond Oil Corp.
Fontana Union Water Co.
Foote Mineral Co.

Foremost-McKesson, Inc.
Forest Oil Corp.
Fountain of Youth Spa Corp.
FPA Corp.
Friona Industries, Inc.
Fuqua Industries, Inc.
GAC Corp.
Galaxy Oil Co.
General American Oil Co. of Texas
General Cigar Co., Inc.
General Development Corp.
General Energy Corp.
General Exploration Co.
General Hawaiian Corp.
General Portland, Inc.
Genie Oil and Gas Corp.
Geo Industries, Inc.
Georgia-Pacific Corp.
Getty Oil Co.
Gifford Hill and Co., Inc.
P.H. Glatfelter Co.
Golconda Corp.
Golden Cycle Corp.
Goldfield Corp.
W.R. Grace and Co.
Graniteville Co.
Great American Industries, Inc.
Great Basins Petroleum Co.
Great Midwest Corp.
Great National Corp.
Great Northern Nekoosa Corp.
Great Western United Corp.
Grumman Corp.

Gulf and Western Industries
Gulf Oil
Gulf Resources and Chemical Corp.
Gulfstream Land and Development Corp.
Gyrodyne Co. of America
Hamilton Brothers Petroleum Corp.
Hammermill Paper Co.
Helmerich and Payne, Inc.
Hershey Foods Corp.
Hewlett Packard Co.
Hiko Bell Mining and Oil Co.
Edward Hines Lumber Co.
Hoerner Waldorf Corp.
Holly Resources Corp.
Holston Land Co., Inc.
Holyoke Water Power Co.
Homestake Mining Co.
Homewood Corp.
Honokaa Sugar Co.
Horizon Corp.
Houston Natural Gas Corp.
Houston Oil and Minerals Corp.
Hudson Pulp and Paper Corp.
Hydro Nuclear Corp.
I C Industries, Inc.
Ideal Basic Industries, Inc.
Indiana Limestone Co., Inc.
Inexco Oil Co.
Inland Container Corp.
Inland Steel Co.
Inspiration Consolidated Copper Co.
Interlake, Inc.
International Harvester Co.

International Minerals and Chemical Corp.
International Paper Co.
International Royalty and Oil Co.
International Telephone and Telegraph Corp.
Investment Corp. of Florida
I P Petroleum, Inc.
ITT World Communications, Inc.
I U International Corp.
Jim Walter Corp.
Johns-Manville Corp.
Jones and Laughlin Steel Corp.
Juniper Petroleum
Kaiser Industries Corp.
Kaiser Steel Corp.
Kane-Miller Corp.
Kansas City Southern Industries, Inc.
Kennecott Copper Corp.
Kentucky-American Water Co.
Kentucky Ohio Gas Co.
Kerr-McGee Corp.
Kewanee Oil Co.
Keweenaw Land Association
Killearn Properties, Inc.
Kimberly-Clark Corp.
Kirby Industries, Inc.
Kohler Co.
Koppers Co., Inc.
K R M Petroleum Corp.
Landmark Land Co., Inc.
Leslie Salt Co.
Libby, McNeill and Libby
Lion Country Safari, Inc.

Locke-Schuler Corp.
Lone Star Industries, Inc.
Longview Fibre Co.
Louisiana Land and Exploration Co.
Louisiana Land Offshore Exploration Co., Inc.
Louisiana-Pacific Corp.
Louisiana-Pacific Resources
Lukens Steel Co.
Magma Energy, Inc.
Mapco, Inc.
Marathon Oil Co.
Marcor, Inc.
Marifarms, Inc.
Marriott Corp.
Martin Marietta Corp.
Masonite Corp.
MauiLand and Pineapple Co.
Maule Industries, Inc.
M C D Holdings, Inc.
Mead Corp.
Medford Corp.
Medusa Corp.
Merchants Petroleum Co.
Merry Companies, Inc.
Mesa Petroleum Co.
Mesabi Trust
Metro-Goldwyn-Mayer Inc.
Metrocare, Inc.
Metropolitan Development Corp.
Michigan Wisconsin Pipeline Co.
MidContinent Mining Corp.

Midland Enterprises, Inc.	North American Royalties, Inc.
H. Miller and Sons, Inc.	Northern National Gas Co.
Mitchell Energy and Development Corp.	North Penn Gas Co.
Mobil Oil Corp.	Northwest Energy Co.
Modular Dynamics, Inc.	Northwest Production Corp.
Molycorp, Inc.	Nuclear Dynamics, Inc.
Monfort of Colorado, Inc.	Oakwood Homes Corp.
Monolith Portland Cement Co.	Occidental Petroleum Co.
Montana Dakota Utilities	Ocean Drilling and Exploration Co.
Montana Power Co.	Oceanic Exploration Co.
Mosinee Paper Corp.	Ocean Oil and Gas Co.
Mount Everest Corp.	Oil-Dri Corp. of America
Mount Vernon Mills, Inc.	Oil Shale Corp.
Mountain Fuel Supply Co.	Oklahoma Natural Gas Co.
Murphy Oil Corp.	Old Fort Industries
McCulloch Oil Corp.	Old Tucson Corp.
McDowell Enterprises, Inc.	Olin Corp.
McMoran Exploration Co.	Olix Industries, Inc.
National Alfalfa Dehydration and Milling Co.	Oppenheimer Industries, Inc.
National Can Corp.	Orange Co.
National Fuel Gas Co.	Orbit Gas Co.
National Gypsum Co.	Owens-Illinois, Inc.
Natomas Co.	Pacific Coast Properties, Inc.
Natural Gas Pipeline Co. of America	Pacific Holding Co.
NEI Corp.	Pacific International Equities
Newhall Land and Farming Co.	Pacific Lumber Co.
New Idria Mining and Chemical Co.	Pacific Silver
New Mexico and Arizona Land Co.	Packaging Corp. of America
Newpark Resources, Inc.	Pan Canadian Petroleum, Ltd.
Newton Falls Paper Mills	Panhandle Eastern Pipeline Co.
Norin Corp.	Pan Ocean Oil Corp.
Norris Oil Co.	Paragon Vineyard Co., Inc.
Nortek, Inc.	Patrick Petroleum Co.
North American Coal Corp.	Pauley Petroleum Co.

Peek-n-Peak Recreation	Research Industries Corp.
Peerless Development Corp.	Reserve Oil and Gas Co.
Penn Dixie Industries, Inc.	Reserve Oil and Minerals Corp.
Pennsylvania Gas and Water Co.	Reynolds Metals Co.
Penn Virginia Corp.	Richmond, Fredericksburg and Potomac Railroad Co.
Pennzoil Louisiana and Texas Offshore, Inc.	
Pennzoil Offshore Gas Operators	Rio Grande Industries, Inc.
Perini Corp.	Robino-Ladd Co.
Petro-Lewis Corp.	Rockwood National Corp.
Petrominerals Corp.	Rohm and Haas Co.
Phelps-Dodge Corp.	Rollins, Inc.
Philip Morris, Inc.	Rosario Resources Corp.
Phillips Petroleum Co.	Rossmoor Corp.
Phoenix Steel Corp.	Royal American Industries
Pioneer Hi-Bred International, Inc.	Royal Palm Beach Colony, Inc.
Pittston Co.	Sabine Royalty Corp.
Pocahontas Land Corp.	Sage Oil Co., Inc.
Pocono International Raceway, Inc.	St. Joe Minerals Corp.
Pope and Talbot, Inc.	St. Regis Paper Co.
Potlatch Corp.	San Jose Water Works
ProChemco, Inc.	Santa Anita Consolidated, Inc.
Proctor and Gamble Co.	Sante Fe Industries
Pullman, Inc.	Sante Fe International Corp.
Punta Gorda Isles, Inc.	Savoy Industries, Inc.
Purex Corp.	Scott Paper Co.
Pyramid Oil Co.	Seagrams Co. Ltd.
Quaker State Oil Refining Corp.	Seneca Oil Co.
Quincy Mining Co.	Seven J Stock Farm, Inc.
Rainbow Resources, Inc.	Sharon Steel Corp.
Ramada Inns, Inc.	Sheldon Petroleum Co.
Ranchers Exploration and Development Corp.	Shell Oil Co.
Reading and Bates Offshore Drilling Co.	Shenandoah Oil Corp.
Reeves Telecom Corp.	Sherwood Diversified Services, Inc.

Shire National Corp.
Shorewood Corp.
Sierra Petroleum Co., Inc.
Signal Companies, Inc.
Silver Bell Industries, Inc.
Silver Dollar Mining Co.
Silver King Mines, Inc.
Skelly Oil Co.
Skyline Oil Co.
Sonoca Products Co.
Sonoma Vineyards
Southern Natural Gas Co.
Southern Pacific Co.
Southern Railway Co.
Southern Union Gas Co.
Southerton Corp.
Southland Paper Mills, Inc.
Southwest Forest Industries, Inc.
Southwest Land Corp.
Spring Mills, Inc.
Standard Industries, Inc.
Standard Oil of California
Standard Oil of Indiana
Stanley Works
Stansbury Mining Corp.
Sterling Sugars, Inc.
Stokely-Van Camp, Inc.
Stratford of Texas, Inc.
Summer and Co.
Summit Energy, Inc.
Sun Oil Co.
Sunshine Consolidated, Inc.
Superior Farming Co.
Teckla, Inc.
Tejon Ranch Co.

Tenneco Offshore Co., Inc.
Tenneco West, Inc.
Terminal Railroad Association of St. Louis
Terramar Corp.
Terra Resources, Inc.
Tesoro Petroleum
Texaco Oil
Texas American Oil Corp.
Texas Gas Transmission Corp.
Texas Gulf, Inc.
Texas Industries
Texas International Co.
Texas Oil and Gas Corp.
Texas Pacific Land Trust
Texas Pacific-Missouri Pacific Terminal Railroad of New Orleans
Thiokol Corp.
Time, Inc.
Times Mirror Co.
Tipperary Corp.
Titan Wells
Toledo Mining Co.
Tomlinson Oil Co., Inc.
Tranquilaire Mental Health Services, Inc.
Trans Atlas Corp.
Transco Companies, Inc.
Transcontinental Oil Corp.
Trans Ocean Oil, Inc.
Trans Union Corp.
Triangle Pacific Corp.
Tribune Oil Corp.
Triton Oil and Gas Corp.
Ultramar Co., Ltd.
Union Camp Corp.

Union Oil of California
Union Pacific Corp.
Uniroyal, Inc.
United Brands
United Canso Oil and Gas, Ltd.
United Nuclear Corp.
United Park City Mines Co.
United Resources, Inc.
United States Natural Resources, Inc.
United States Sugar Corp.
Universal Resources Corp.
Upjohn Co.
Utah-Idaho Sugar Co.
Utah International, Inc.
Utah Shale and Minerals Corp.
Vahlsing, Inc.
Valhi, Inc.
Viking General Corp.
Vipoint Mining Co.
Virginia Hot Springs Co.
Walt Disney Productions
Warner Co.
Washington Natural Gas Co.
Wausau Paper Mills Co.
Weatherford International, Inc.
Del E. Webb, Inc.
Webb Resources, Inc.
Weco Development Corp.
Westates Petroleum Co.
Western Beef, Inc.
Western Oil Shale Corp.
Western Orbis Co.
Western Pacific Industries, Inc.

Westinghouse Electric Corp.
Westmoreland Coal Co.
Westrans Industries, Inc.
Westvaco Corp.
Weyerhaeuser Co.
Wheeling-Pittsburgh Steel Corp.
Whippany Paper Board Co., Inc.
Willamette Industries, Inc.
Willshire Oil Company of Texas
Wiser Oil Co.
Wolverine Power Corp.
Woods Corp.
Woodmoor Corp.
Xerox Corp.
Yuba Goldfields, Inc.
Zapata Corp.
Zoller and Danneberg, Inc.

